- (ii) Lapped joints must have an appropriate overlap.
- (4) Where closing is effected by gluing or taping, a water resistant adhesive must be used.
- (5) Boxes must be designed so as to provide a snug fit to the contents.
- (6) Maximum net mass: 400 kg (882 pounds).

[Amdt. 178–97, 55 FR 52717, Dec. 21, 1990, and amended by Amdt. 178–99, 58 FR 51534, Oct. 1, 1993; Amdt. 178–106, 59 FR 67521, Dec. 29, 1994]

## §178.517 Standards for plastic boxes.

- (a) The following are identification codes for plastic boxes:
- (1) 4H1 for an expanded plastic box; and
  - (2) 4H2 for a solid plastic box.
- (b) Construction requirements for plastic boxes are as follows:
- (1) The box must be manufactured from suitable plastic material and be of adequate strength in relation to its capacity and intended use. The box must be adequately resistant to aging and to degradation caused either by the substance contained or by ultraviolet radiation.
- (2) An expanded plastic box must consist of two parts made of a molded expanded plastic material: a bottom section containing cavities for the inner receptacles, and a top section covering and interlocking with the bottom section. The top and bottom sections must be so designed that the inner receptacles fit snugly. The closure cap for any inner receptacle may not be in contact with the inside of the top section of the box.
- (3) For transportation, an expanded plastic box must be closed with a self-adhesive tape having sufficient tensile strength to prevent the box from opening. The adhesive tape must be weather-resistant and its adhesive compatible with the expanded plastic material of the box. Other closing devices at least equally effective may be used.
- (4) For solid plastic boxes, protection against ultra-violet radiation, if required, must be provided by the addition of carbon black or other suitable pigments or inhibitors. These additives must be compatible with the contents and remain effective throughout the life of the box. Where use is made of carbon black pigment or inhibitors

- other than those used in the manufacture of the tested design type, retesting may be waived if the carbon black content does not exceed 2 percent by mass or if the pigment content does not exceed 3 percent by mass; the content of inhibitors of ultra-violet radiation is not limited.
- (5) Additives serving purposes other than protection against ultra-violet radiation may be included in the composition of the plastic material if they do not adversely affect the material of the box. Addition of these additives does not change the design type.
- (6) Solid plastic boxes must have closure devices made of a suitable material of adequate strength and so designed as to prevent the box from unintentionally opening.
- (7) Maximum net mass 4H1: 60 kg (132 pounds); 4H2: 400 kg (882 pounds).

## §178.518 Standards for woven plastic bags.

- (a) The following are identification codes for woven plastic bags:
- (1) 5H1 for an unlined or non-coated woven plastic bag;
- (2) 5H2 for a sift-proof woven plastic bag; and
- (3) 5H3 for a water-resistant woven plastic bag.
- (b) Construction requirements for woven plastic fabric bags are as follows:
- (1) Bags must be made from stretched tapes or monofilaments of a suitable plastic material. The strength of the material used and the construction of the bag must be appropriate to the capacity and intended use of the bag.
- (2) If the fabric is woven flat, the bags must be made by sewing or some other method ensuring closure of the bottom and one side. If the fabric is tubular, the bag must be closed by sewing, weaving, or some other equally strong method of closure.
- (3) Bags, sift-proof, 5H2 must be made sift-proof by appropriate means such as use of paper or a plastic film bonded to the inner surface of the bag or one or more separate inner liners made of paper or plastic material.
- (4) Bags, water-resistant, 5H3: To prevent the entry of moisture, the bag must be made waterproof by appropriate means, such as separate inner